

*(Workshop at MIE 2015, Madrid)*

## Courses on Health IT Evaluation: Development of Recommendations

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**Abstract** To guarantee that health IT evaluation studies are conducted in accordance with robust standards, well-trained health informatics experts are needed. In this workshop that is jointly organized by the EFMI, IMIA and AMIA Working Groups on Health IT Evaluation and the EFMI Working Group on Education in Health Informatics, we will work on recommendations for content of health IT evaluation courses. In particular, participants will first get an overview on first recommendations developed during an earlier joint workshop at MIE 2014 and will then work in smaller groups to refine these recommendations.

**Keywords.** Health informatics, health informatics education, evaluation, assessment, health informatics curricula

### Introduction of the topic

High-quality and efficient health care seems not possible nowadays without the support of information technology (IT)(1). Health IT has shown to be usually beneficial for quality and efficiency of clinical processes and health outcome, morbidity, mortality and costs, but not necessarily optimal, and with the potential for damaging effects (2-4). To verify that appropriate benefits are forthcoming and no unintended side effects of health IT are obtained, systematic evaluation studies are needed to ensure safe systems in use, and an evidence-based approach (5). The need for systematic evaluation is reinforced by recent European regulations that require that all medical products (and this includes certain types of clinical software) need to undergo clinical evaluation.

To guarantee that health IT evaluation studies are conducted in accordance with appropriate scientific and professional standards, well-trained health informatics experts are needed. The recently updated recommendations on health informatics education of IMIA, the International Medical Informatics Association (6), recommend

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that the topic "evaluation and assessment of information systems" should be part of health informatics curricula. These IMIA recommendations identify some exemplary content for such training ("study design, selection and triangulation of quantitative and qualitative methods, outcome and impact evaluation, economic evaluation, unintended consequences, systematic reviews and meta-analysis, evidence-based health informatics"), but give no further details. Indeed, besides text books (e.g. (7, 8)), no recommendations exist on what should be taught in health IT evaluation as part of health informatics curricula.

In this workshop, we will work on recommendations for content of health IT evaluation courses. **This is a follow-up workshop of the successful workshop at MIE 2014** with 28 participants where draft recommendations were developed (see [Appendix](#)). The objective is to continue these discussions and to develop more detailed recommendations with special focus on different levels of training.

*This workshop is jointly organized by the WG "Assessment of Health Information Systems" (<http://iig.umit.at/efmi>) of EFMI (chair: Elske Ammenwerth), the WG "Technology Assessment and Quality Development" of IMIA (co-chairs: Andrew Georgiou, Farah Magrabi), the WG "Evaluation" of AMLA (chair: Catherine Craven) and the WG "Education in Health Informatics" of EFMI (chair: John Mantas).*

### 1. Aim of the workshop

To continue the discussion on recommended core content of health IT evaluation courses, based on outcomes of a MIE2014 workshop; and to develop recommendations for content of health IT evaluation courses, with focus on different training levels.

### 2. Intended audience

Teachers at university level that give courses on health IT evaluation; Teachers that are interested to start a course on health IT evaluation; Practitioners interested to learn about content of health IT evaluation education; Colleagues interested in raising the quality of health IT evaluation education.

To facilitate the group discussions, the following health IT evaluation experts will participate and facilitate the group discussions: Prof. Elske Ammenwerth, University UMIT, Austria; Assoc. Prof. Nicolet de Keizer, Academic Medical Center, the Netherlands; Assoc. Prof. Pirkko Nykänen, University of Tampere, Finland

### 3. Workshop organization

|            |               |  |
|------------|---------------|--|
| 0-15 min.  | Moderators    | Introduction to background, objectives and organization of the workshop<br>Introduction of participants  |
| 15-30 min. | Moderators    | Presentation of results of MIE2014 workshop<br>Discussion of remaining open questions<br>Explanation of tasks of the group work<br>Forming of groups |
| 30-60      | Work in small | To facilitate the discussions and exploitation of the knowledge of   |

|              |                                  |   |
|--------------|----------------------------------|---|
| min.         | groups (4 – 5 participants each) | the audience, groups will be formed. Each group will be asked to nominate a group moderator and a group secretary. Each group will get a hand-out with a structured overview of core content as developed in the MIE2014 workshop (see Appendix). Groups will then work independently on the following questions:<br>1. Is the list of recommended content complete? Is important content missing?<br>2. Are the proposed levels of training feasible? How much time should be devoted for health IT evaluation training on each level?<br>3. In what level of detail should each content item be taught on each level? |
| 60 – 80 min. | Group speakers / Moderators      | Each of the group speakers presents the outcome of the group discussions. Moderator summarizes group discussions. All discussion and conclude on recommended core content and on levels of training   |
| 80-90 min.   | Moderators                       | Conclusion: Next steps for developing a recommendations<br>Collection of written documentation of all groups  |

#### 4. Expected results

As a result, a structured overview on recommended content of health IT evaluation and how much each content should be covered on different levels will be available. The outcomes of this workshop will be used in an already running joint initiative of the EFMI, IMIA and AMIA WGs to develop recommendations for health IT evaluation courses. These will be published in an international health informatics journal.

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